Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

44—18

Proceedings of the American Academy of Arts and Sciences.

VOL. XLIV. NO. 18. — MAY, 1909.

CONTRIBUTIONS FROM THE JEFFERSON PHYSICAL LABORATORY, HARVARD UNIVERSITY.

RESIDUAL CHARGES IN DIELECTRICS.

BY C. L. B. SHUDDEMAGEN.

(Continued from page 3 of Cover.)

VOLUME 44.

1. IRWIN, F. — The Invariants of Linear Differential Expressions. pp. 1–60. November, 1908. $1.50.
2. PEIRCE, B. O. — The Damping of the Oscillations of Swinging Bodies by the Resistance of the Air. pp. 61–88. 4 pls. November, 1908. 40c.
3. RICHARDS, T. W. — Note Concerning the Silver Coulometer. pp. 89–94. November, 1908. 10c.
4. KENNELLY, A. E. — Artificial Lines for Continuous Currents in the Steady State. pp. 95–130. November, 1908. 40c.
5. MORGULIS, S. — The Effect of Alkaloids on the Early Development of Toxopneustes Variegatus. pp. 131–146. November, 1908. 25c.
6. MORGAN, M. H. — The Preface of Vitruvius. pp. 147–175. January, 1909. 35c.
7. BAXTER, G. P., and COFFIN, F. B. — A Revision of the Atomic Weight of Arsenic. Preliminary Paper. — The Analysis of Silver Arsenate. pp. 177–197. January, 1909. 30c.
8. BRIDGMAN, P. W. — The Measurement of High Hydrostatic Pressure. (I.) A Simple Primary Gauge. pp. 199–217. February, 1909. 30c.
9. BRIDGMAN, P. W. — The Measurements of High Hydrostatic Pressure. (II.) A Secondary Mercury Resistance Gauge. pp. 219–251. February, 1909. 50c.
10. BRIDGMAN, P. W. — An Experimental Determination of Certain Compressibilities. pp. 253–279. February, 1909. 40c.
11. PEIRCE, B. O. — The Theory of Ballistic Galvanometers of Long Period. pp. 281–314. 1 pl. March, 1909. 55c.
12. PIERCE, G. W. — Crystal Rectifiers for Electric Currents and Electric Oscillations. (II.) Carborundum, Molybdenite, Anatase, Brookite. pp. 315–349. 1 pl. March, 1909. 65c.
13. PEIRCE, B. O. — On the Magnetic Behavior of Hardened Cast Iron and of Certain Tool Steels at High Excitations. pp. 351–364. March, 1909. 30c.
14. MORSE, H. W., and SHUDDEMAGEN, C. L. B. — The Properties of an Aluminum Anode. pp. 365–397. March, 1909. 50c.
15. BAXTER, G. P., MUELLER, E., and HINES, M. A. — A Revision of the Atomic Weight of Chromium. (I.) The Analysis of Silver Chromate. pp. 399–417. March, 1909. 30c.
16. BAXTER, G. P., and JESSE, R. H., Jr. — A Revision of the Atomic Weight of Chromium. (II.) The Analysis of Silver Dichromate. pp. 419–432. March, 1909. 25c.
17. PALACHE, C., and LA FORGE, L. — Notes on the Crystallography of Leadhillite. (I.) Leadhillite from Utah; (II.) Leadhillite from Nevada. pp. 433–463. 3 pls. April, 1909. 65c.
18. SHUDDEMAGEN, C. L. B. — Residual Charges in Dielectrics. pp. 465–521. May, 1909. 95c.
19. DERR, L. — A Photographic Study of Mayer's Floating Magnets. pp. 523–528. 1 pl. May, 1909. 20c.
20. LEACH, H. G. — The Relations of the Norwegian with the English Church, 1066–1399, and their Importance to Comparative Literature. pp. 529–560. May, 1909. 40c.
21. EASTWOOD, A. — (I.) Synopsis of the Mexican and Central American Species of *Castilleja;* (II.) ROBINSON, B. L. — A Revision of the Genus *Rumfordia;* (III.) BARTLETT, H. H. — A Synopsis of the American Species of *Litsea;* (IV.) EASTWOOD, A. — Some Undescribed Species of Mexican Phanerogams; (V.) BARTLETT, H. H. — Notes on Mexican and Central American Alders; (VI.) ROBINSON, B. L. — Diagnoses and Transfers of Tropical American Phanerogams; (VII.) BARTLETT, H. H. — The Purple-flowered *Androcerae* of Mexico and the Southern United States; (VIII.) BARTLETT, H. H. — Descriptions of Mexican Phanerogams. pp. 561–637. May, 1909. 85c.

Proceedings of the American Academy of Arts and Sciences.

VOL. XLIV. No. 18. — MAY, 1909.

CONTRIBUTIONS FROM THE JEFFERSON PHYSICAL LABORATORY, HARVARD UNIVERSITY.

RESIDUAL CHARGES IN DIELECTRICS.

BY C. L. B. SHUDDEMAGEN.